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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,190	09/10/2003	Masayuki Takashima	600630-8US (562653)	5605

570 7590 06/15/2006

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PHILADELPHIA, PA 19103

EXAMINER

WEBB, GREGORY E

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5

Office Action Summary	Application No. 10/659,190	Applicant(s) TAKASHIMA, MASAYUKI	
	Examiner Gregory E. Webb	Art Unit 1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 6 and 8-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |



DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 4/5/06, with respect to Leon have been fully considered and are persuasive. The rejection with respect to Leon has been withdrawn.
2. The examiner disagrees with the arguments concerning Sakai. As only two ingredients are required by the instant claims and as only one ingredient is required for choosing, one of ordinary skill in the art of chemistry would not be required to pick and choose these ingredients but would instead only be required to select an individual ingredient. As such selections are not extraordinary it is deemed that one of ordinary skill would be able to determine the applicant's invention in light of the Sakai reference.
3. Furthermore, it is known in the art to use different corrosion inhibitors as they function in roughly the same manner (i.e. preventing oxidation of copper).

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 6, 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi, Masakazu (US6815151).

Concerning the copper wiring and the semiconductor, Kobayashi, Masakazu teaches the following:

The conventional process for manufacturing **semiconductor** devices and liquid crystal display devices comprises forming a resist pattern on a conductive metallic film made of aluminum, **copper**, aluminum alloy, etc. or an insulating film made

of SiO₂, etc. on a substrate, selectively etching the conductive metallic film or insulating film utilizing the formed pattern as a mask to thereby form fine circuits, and then removing the unnecessary resist pattern layer with the use of a remover solution. (*emphasis added*)

Concerning the basic compound, Kobayashi, Masakazu teaches the following:

A positive-type photoresist (THMR-ip3300, manufactured by Tokyo Ohka Kogyo Co., Ltd.) composed of a naphthoquinone diazide compound and a novolak resin was applied with a spinner on a silicone wafer (6 in) metallized with an Al-Si-Cu film having a thickness of about 1.0 μm . After drying at 90.degree. C. for 90 seconds, a resist film of 1.05 μm in thickness was formed. Next, this resist film was exposed to light via a mask pattern NSR-2005i10D (manufactured by Nikon Corporation) and then developed with a 2.38% by weight aqueous solution of **tetramethylammonium hydroxide** to thereby form a resist pattern, which was then post-baked at 120.degree. C. for 90 seconds. (*emphasis added*)

Concerning the sugar alcohol, mannitol, sugar alcohols and the glucose, Kobayashi, Masakazu teaches the following:

Examples of the **saccharide** include **D-sorbitol**, **arabitol**, **mannitol**, sucrose and starch, with **D-sorbitol** being preferred. (*emphasis added*)

Concerning the optional ketone solvent, optional ester solvents and the optional sulfur solvent, Kobayashi, Masakazu teaches the following:

If needed, the rinsing solution may further contain other water soluble organic solvents. Examples of the water soluble organic solvents include monohydric alcohols such as methyl alcohol, ethyl alcohol and isopropyl alcohol; ketones such as **acetone**; sulfoxides such as **dimethyl sulfoxide**; sulfones such as dimethyl sulfone, diethyl sulfone, bis(2-hydroxyethyl) sulfone and tetramethylene sulfone; amides such as N,N-dimethylformamide, N-methylformamide, N,N-dimethylacetamide, N-methylacetamide and N,N-diethylacetamide; lactams such as N-methyl-2-pyrrolidone, N-ethyl-2-pyrrolidone, N-propyl-2-pyrrolidone, N-hydroxymethyl-2-pyrrolidone and N-hydroxyethyl-2-pyrrolidone; imidazolidinones such as 1,3-dimethyl-2-imidazolidinone, 1,3-diethyl-2-imidazolidinone and 1,3-diisopropyl-2-imidazolidinone; lactones such as γ -**butyrolactone** and δ -valerolactone; and polyhydric alcohols and derivatives thereof such as ethylene glycol, ethylene glycol monobutyl ether, ethylene glycol monomethyl ether acetate, ethylene glycol monoethyl ether acetate, diethylene glycol, diethylene glycol monomethyl ether, diethylene glycol monoethyl ether, diethylene glycol monobutyl ether and propylene glycol. Among all, it is preferable to use methyl alcohol, ethyl alcohol, isopropyl alcohol, ethylene glycol or propylene glycol. (*emphasis added*)

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory E. Webb whose telephone number is 571-272-1325. The examiner can normally be reached on 9:00-17:30 (m-f).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglass McGinty can be reached on (571)272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1751

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Gregory E. Webb', with a large loop at the start and a wavy line extending to the right.

Gregory E. Webb
Primary Examiner
Art Unit 1751

gew